

REMARKS

I. Status of the Claims. Claims 1 and 6-31 are pending. Claims 9-24 have been withdrawn from consideration by the Examiner as being directed to a non-elected invention.

Claims 1 and 26-30 have been amended to call for identifying compounds that contain “at least one functional group” that can be accommodated by a cavity. Support is found in the specification at, e.g., page 9, lines 8-9 (“molecular interactions between the target protein and at least a functional group of a compound which can be accommodated by the cavity”). The amendments to claims 1 and 26-30 are not related to patentability of the claims. Nor do the amendments to claims 1 and 26-30 narrow the claims.

Claims 6-8 are amended to more clearly identify the respective subject matter recited therein. The respective scopes of claims 6-8 are unchanged. Accordingly, the amendments to claims 6-8 do not add new matter to the application.

Claim 25 is amended to call simply for a “cavity.” The scope of claim 25 is unchanged. Thus, the amendment to claim 25 does not add new matter to the application.

By this Amendment, no new matter has been added to the application.

II. Claim Objection. The Examiner has objected to the phrase “modulates intermolecular interaction” that appears in claim 1 as being a grammatical error. In response, it is believed that the phrase “modulates intermolecular interaction” is grammatically correct. The term “intermolecular interaction” is a passive verb (similar to, e.g., “binding”). Thus, when viewed properly, the term “intermolecular interaction” does not require an article, such as “the” or “an.” Reconsideration of the objection is requested.

III. Claim Rejections Under 35 U.S.C. §112, second paragraph. Claims 1, 6-8, and 25-31 are rejected for alleged indefiniteness. The bases of the rejection are addressed as follows.

The Examiner’s assertion that the term “modifier” in claims 1 and 26-30 is unclear is respectfully traversed. The specification sets forth that a “modifier” is “a compound which is involved in intermolecular interactions with a target protein.” Specification at page 7, lines 6-7.

The specification further states that “modifier” is interchangeable with “ligand.” Thus, a “modifier” is a compound that interacts at the molecular level with a target protein, at a functionally critical site of the target protein. Accordingly, the term “modifier” is believed to be clear. To the extent that further explanation may be helpful in understanding the term “modifier,” it is noted that the “compound” to be identified by the methods set forth in the claims is a compound that binds to a cavity on a target and thus modulates intermolecular interaction (e.g., binding) between the target protein and a modifier.

In further respect to claims 1 and 26-30, the Examiner’s assertion that the phrase “said compound modulates intermolecular interaction at said critical site of said target protein and said modifier” is unclear because it is unclear what is being modulated is traversed. With reference to the comments immediately above concerning the term “modifier,” it is clear that what is being modulated is the interaction between the target protein (e.g., without limitation, a receptor) and the modifier (e.g., without limitation, a ligand). To further clarify this point with respect to claim 1, the word “at” that appears in the last paragraph of claim 1 has been changed to “between.”

The Examiner has rejected claims 6, 7 and 8 on the grounds that it is unclear whether the respective subject matter of each claim replaces a step in claim 1 or is an additional step to the steps recited in claim 1. In response, without conceding the validity of the rejections, claims 6-8 have been amended to clarify the relationship between the respective subject matter of the claims vis a vis the steps called for in claim 1. The respective scopes of claims 6-8 are unchanged.

The Examiner has asserted that the term “allosteric cavity” that appears in claim 25 lacks antecedent basis. In response, claim 25 has been amended to change “allosteric cavity” to “cavity.”

The discussion set forth above is believed to address each basis for the instant rejection. Thus, for at least the reasons set forth above, the claims comply with section 112, second paragraph. Reconsideration of the claims and withdrawal of the instant rejection is requested.

IV. Conclusion. This application is believed to be in condition for allowance, which is earnestly solicited. If there are remaining issues that the Examiner believes could be addressed by conducting an interview or entering an Examiner’s Amendment, the Examiner is cordially invited to contact the undersigned attorney to discuss such issues.

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Respectfully submitted,

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